BEREZHINSKIY, A. I.

"Boilers-Utilizers of Open-Hearth Furnaces." Sub 8 Jun 51, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

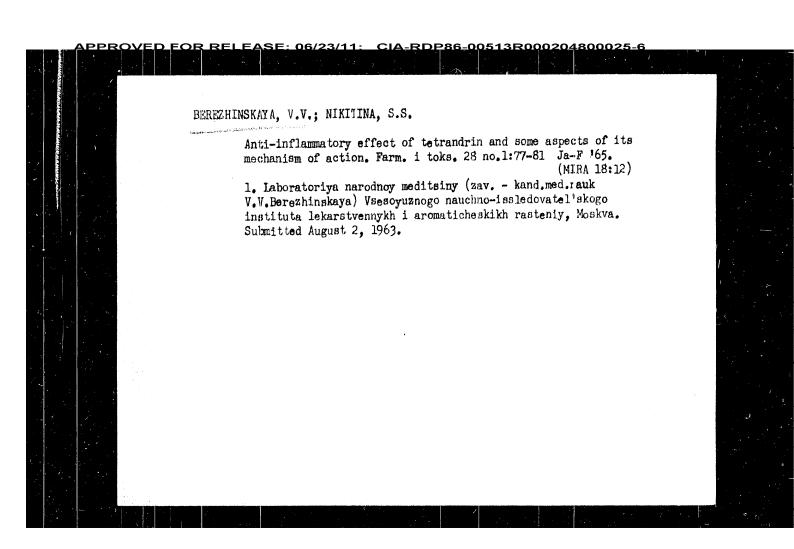
RABINOVICH, I.M.; KIBAL'CHICH, P.N.; FADEYEVA, I.I.; IL'INSKAYA, T.N.; KUZOVKOV, A.D.; BEREZHINSKAYA, V.V.; TRUTNEVA, Ye.A.; BIKITINE, S.S.

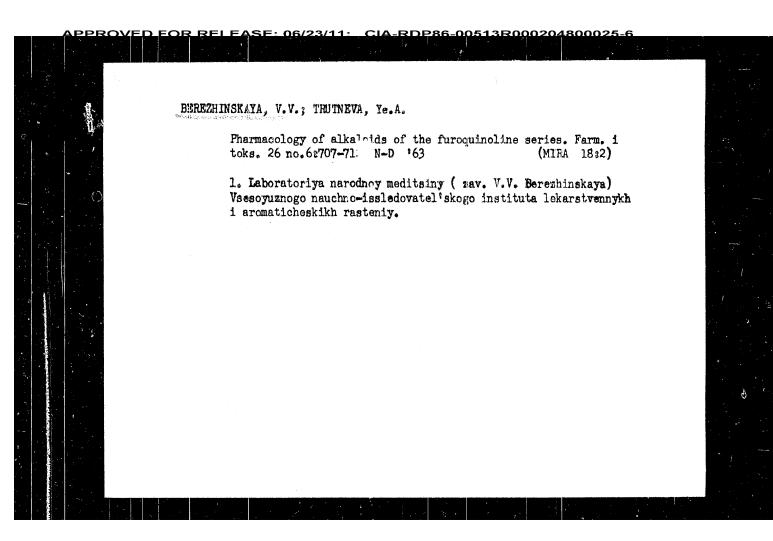
Plants of the Stephania genus as a source of new medicinal preparations, Apt. delo 14 no.6:19-22 N-D '65.

(MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh i aromaticheskikh rasteniy, Moskva. Submitted Jume 15, 1965.

SKORODUMOVA, I.V.; BEREZHINSKAYA, V.V. Structural changes in the enterochromaffin system of the small intestine under the effect of rotundin. Biul.eksp.biol.i med. (MIRA 18:2) 58 no.7:113-115 J1 '64. 1. Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykn i aromaticheskikh rasteniy (dir. P.T.Kondratenko) Ministerstva zdravookhraneniya SSSR, Moskva. Submitted March 29, 1963.





ALESHKINA, Ya.A.; BEREZHINSKAYA, V.V. Pharmacology of the glycosides of Thevetia peruviana. Farm. i toks. 25 no.6:720-725 N-D 162. (MIRA 17:8) 1. Laboratoriya narodnoy meditalny (zav. - kand. med. nauk V.V. Berezhinskaya) Vsescyuznogo nauchno-issledovatel'skogo instituta lekarstvennykh i aromaticheskikh rasteniy.

BEREZHINSKAYA, V.V. Cardiac glycosides. Med. prom. 16 no.2:3-8 F '62. (MIRA 15:3) l. Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh i aromaticheskikh rasteniy.
(CARDIAC CLYCOSIDES) TRUTNEVA, Ya.A.; BEREZHINSKAYA, V.V.

Pharmacology of alkaloids from the lupinane group. Farm. i toks.
23 no. 51445-449 S-0 160. (MIRA 13:12)

1. Otdel farmakologii (zev. - prof. A.D. Turova) Vsesoyuznogo
nauchno-issledovatel'skogo instituta lekarstvennykh i
aromaticheskikh rasteniy.

(NORLUAINANE)

IGNATOV, Sergey Illerionovich; MAIMIND, S.I., red.; BEREZHINSKAYA, V.V., red.; GABENLAND, M.I., tekhn.red.

[Phermacotherapy; menual for pediatricians] Marmakoterapiia; rukovodatvo dila vrachai-pediatrov. Izd.3., ispr. i dop. Moskva, Gos.izd-vo med.lit-ry, 1960. 255 p.

(MEDICINE-FORMULAE, RECEIPTS, PRESCRIPTIONS) (PRDIATRICS)

Pharmacology of evoxin. Fam. 1 toks. 22 no.2:117-122
Mr-Ap '59. (MIRA 12:6)

1. Otdel farmakologii (zav. - prof. A.D. Turova) Vsesoyuznogo
nauchno-iseledovatel'ekogo instituta lekarstvennykh i aromaticheskikh rasteniy.

(ALKALOIDS,
evoxin (Rus))

ALESHKINA, Ya.A.; BEREZHINSKAYA, V.V.; VOLYNSKAYA, M.B.

Sirup of alos with iron in the treatment of anemia. Med. prom. 13 no.8:62-63 Ag '59.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh i aromaticheskikh rasteniy.

(ALOE) (ANEMIA)

ARSEL'ROD, D.M., BEREZHINSKAYA, V.V.

Culture of Arnica and its importance in medical practice.

Med. prom. 12 no.1219-23 D '58 (MRM 11:12)

1. Vaesoyuznyy nauchno-issledovatel'skiy institut lekarstvennykh
i aromaticheskikh rasteniy.

(ARNICA)

ALESHKINA, Ya.A., BEREZHINSKAYA, V.V., VOLYNSKAYA, M.B.

Preparations from restharrow (Cononis arvensis). Med.prom. 12 (MIRA 11:11)

1. Vsesoyusnyy nauchno-issledovatel'skiy institut lekarstvennykh i aromaticheskikh rasteniy. (VSSTRARROW) (GLYCOSIDES)

PPROVED FOR RELEASE: 06/23/11; CIA-RDP86-00513R000204800025-6

USSR/Pharmacology. Toxicology. Cardiovascular Drugs

v

Abs Jour : Ref Zhur - Biol., No II, 1958, No 51994

Author : Berezhinskaya, Y.V., Loshkarev P.M., Turova A.D.

Inst : Medical Industry of USSR
Title : The Cardiac Drug Erysimine

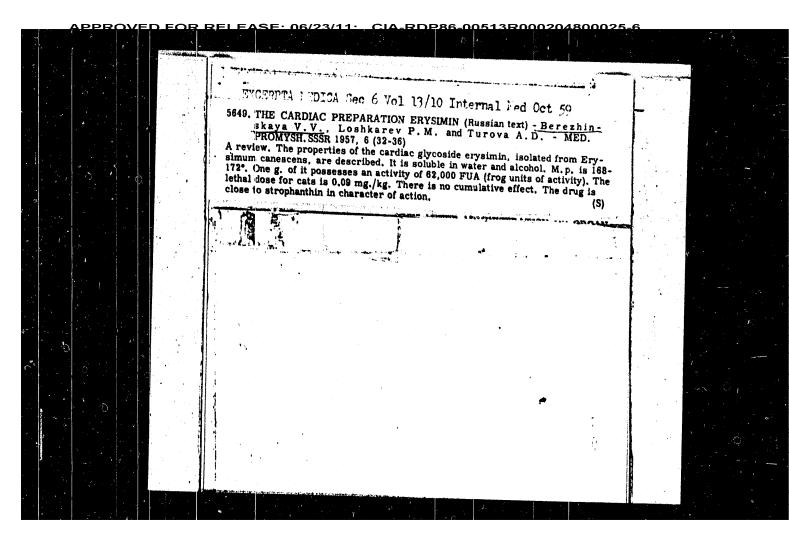
Orig Pub: Med. prom-st SSSR, 1957, No 9, 32-36

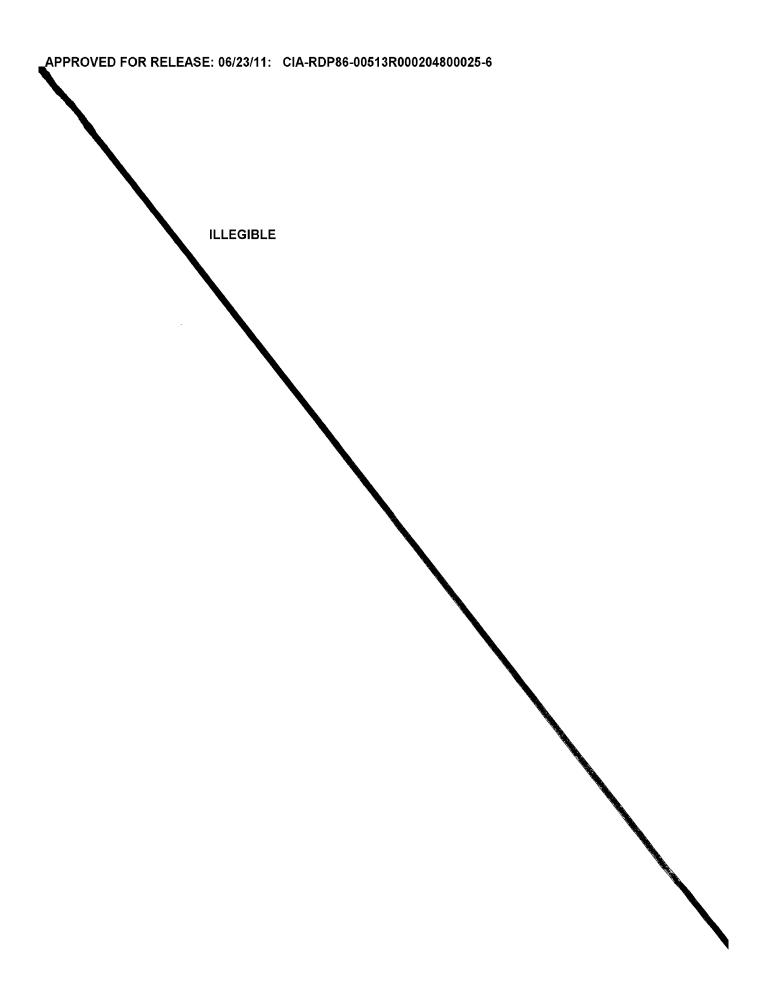
Abstract: Erysimine is close to strophantine by its general mode of

action upon the heart, by its speed of action, the absence of cumulative effects and electrocardiographic changes, but its action is milder, and of less intensity. The dose is established individually, taking into consideration the general condition of the patient and his car-

diac status.

(lard : 1/1





ÚSSR/Pharmacology. Pharmacognosy. Toxicology - Medicinal Plants. T-5

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 71727

The effect of I on the vegetative nervous system was studied on cats under urethane anaesthesia. It was found that I injected intravenously in 0.3-5 mg/kg doses reduces the BP upon the electrical irritation of the neck stem of the vagus nerve and the introduction of acetylchline. Atropinisation and severance of the vagus nerve on the neck reduces the BP reaction toward I. It was found that I in 0.3-1 mg/kg doses decreases, and in 2-3 mg/kg doses completely abolishes the reaction produced by the administration of cytisine. It was noted that I counteracts the spasm of an isolated piece of intestine, produced by acetylcholine and Barium Chloride and causes contraction in an isolated horn of the uterus of a guinea pig. (The concentrations not given. Editor).

Card 2/2

BEREZHINSKAYA, V. V.

USSR/Pharmacology. Pharmacognosy. Toxicology - Medicinal Plants.

Abs Jour

: Referat Zhur - Biologiya, No 16, 1957, 71727

Author

Berezhinskaya, V.V., Nikolskaya, B.S.

Inst

Title Orig Fub On the Pharmacology of Menispermum Dahurocum Alkoloid.

T-5

: Farmakol. i toksikologiya, 1956, (1957), Adden, Sb. Ref,

Abstract

The study of Sinomenine (I; alkoloid from the Menispermum dahuricum grass) established DL₅₀ I for mice 131 mg/kg, and the minimal lethal dose of I for cats 75 mg/kg. Intravenous administration of I in 0.3-3 mg/kg doses into cats under urethane anaesthesia produced lowering of blood pressure (BP) by 20-90 mm Hg in the course of 45-60 minutes. In acute tests with rabbits where doses of 20-40 mg/kg of I were used, the BP also dropped. I in a solution of 10-5 -10-4 showed a positive inotropic effect on an isolated frog heart. The

Card 1/2

- 47 -

BERGZHINSKAYA, V. V.

Dissertation: "The Comparative Pharmacological Characteristics of Cardiac Olycosides of Soviet Manufactures" Cand Med Sci, First Moscow Order of Lenin Medical Inst, 13 Sep 54. (Vechernyaya Moskva, Moscow, 5 Aug 54)

SO: SUM 393, 28 Feb 1955

RESTRIESTATA T.V.: ZEMLIESKIY, S.Te.; KUSHKE, E.B.: MURAV'YEVA, V.I.
SATSTEROV, F.A. [deceased]: ITSKOV, N.Ya., kandidat sel'akokhosyayet. nsuk, redaktor: TUROVA, A.D., doktor mediteinskikh nsuk,
redaktor: ZHUKOV, G.I., redaktor; EEL'GHIKOVA, Yu.S., tekhnioheskiy redaktor.

[Belladenna] Belladenna, Pod.red. B.IA, Itskova i A.D. Turovoi.
Moskva, Medgiz, 1953. 115 p. (MIRA 7:8)

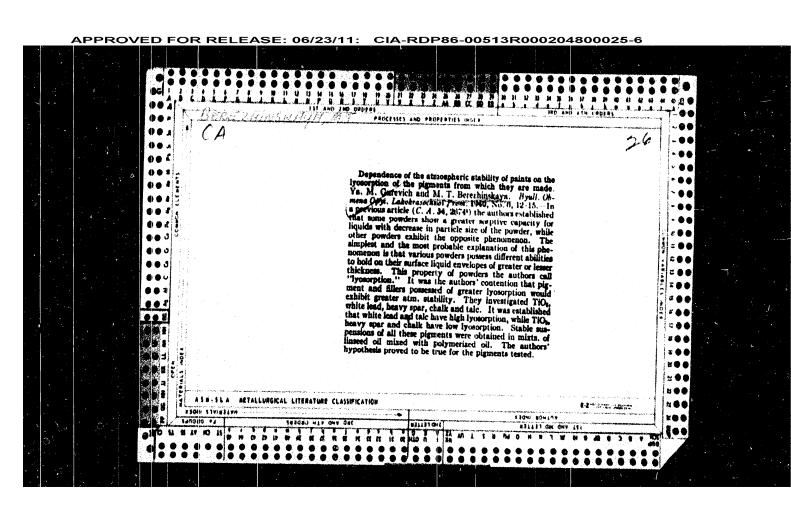
(Belladenna)

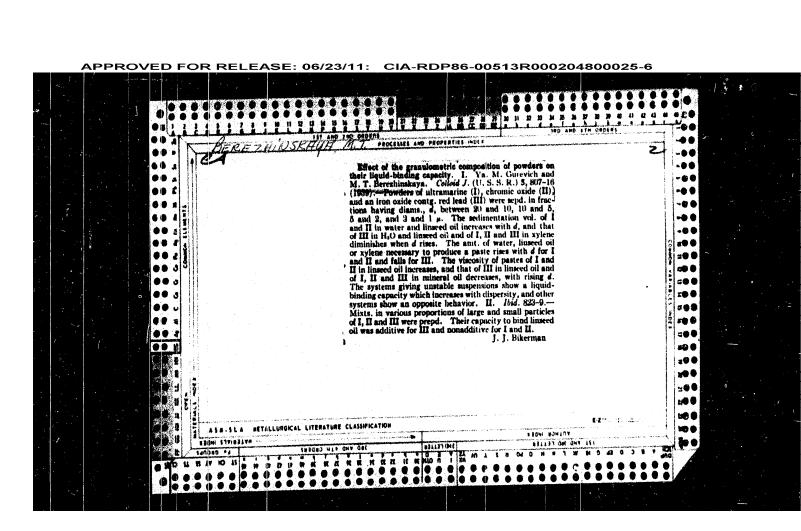
(Belladenna)

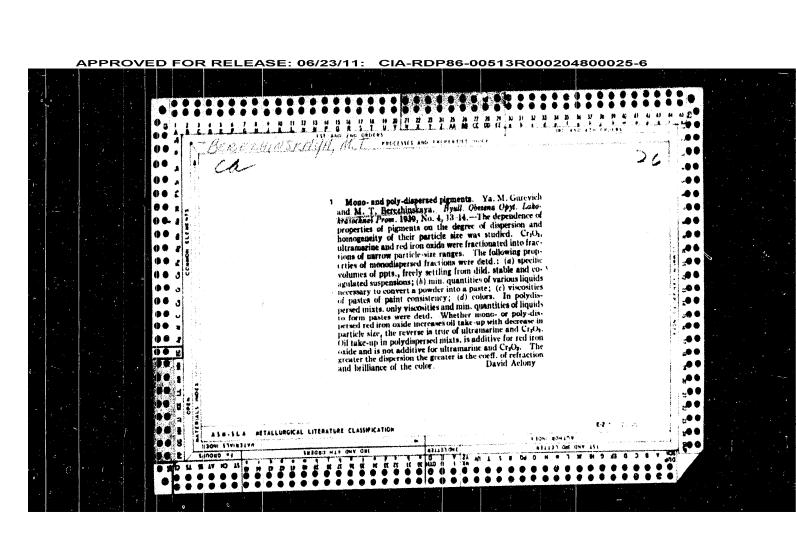
TUROVA, A.D.; EREZHINSKAYA, V.V.; LESKOV, A.I.

Mifect of Berberis amurensis on the uterus. Akush.i gin. no.2:50-51 Mr(MEA 6:5)

1. Otdel farmakologii Vsesoyusnogo nauchno-issledovatel'skogo instituta
lekarstvennykh i aromaticheskikh rasteniy. (Uterus) (Botany, Medical)







BEREZHINSKIY, A. I.

137-1957-12-23255

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 57 (USSR)

AUTHOR: Berezhinskiy, A. I.

TITLE:

The Construction, Starting Procedure, and Operational Characteristics of the KU-50 Recovery Boiler (Konstruktsiya opyt puska i ekspluatatsionnyye kharakteristiki kotla-utilizatora KU-50)

PERIODICAL: V sb.: Kotly-utilizatory martenovsk. pechey. Moscow, Metallurgizdat, 1957, pp 151-165

ABSTRACT: The KU-50 recovery boiler developed by Gipromez is designed to handle 50,000 nm³/hr of flue gases at a temperature of 600°. The nominal steam generation capacity of the boiler is 6 t/hr; the steam pressure is 17 atm (gauge) (Translator's Note - gauge pressure above free-air atmospheric pressure), the temperature of the superheated steam is 375°. The heating surfaces of the boiler have the following areas (in m²): steam superheater 62, evaporating coils 511, water economizer 155. The heating surfaces of the boiler are housed in the horizontal gas flue. The evaporating surface consists of 72 coils grouped in four parcels and the water economizer is composed of 7 coils grouped in parcels. The cleaning of the heating surfaces of the boiler is accomplished by washing every two days.

Boilers-Operation 2. Boilers-Characteristics

Card 1/1

BEFERMIN, P. N.

IESR/Engineering Apr 49
Welding Training

"First Graduation of Welding Engineers From the Chelyabinsk Mechanics and Machine Building Institute," P. N. Berezhin, 1 p

"Avtogennoye Delo" No 4

In Dec 48, Chelyabinsk Mech and Mach-Bldg Inst graduated the first group of 18 mechanical engineers specializing in equipment and technology of welding production. All have been sent to factogies in the Urals, the Volga provinces, Siberia, and the Far East.

43/49731

ACC NR: AR6020938

was done in a crucible of a LGP-30 furnace at temperatures to 2000°C and pressures of 0-4 atm. Depending on the value of temperature, [N] Majes and even at 1450°C it built up to 4%, while at 1500°C it reached 8%. With a further increase, [N] dropped. The flow rate of N₂ was 75-120 l/hr. The duration of nitriding was 5 hr at 1450 ± 50°C. The assimilation coefficient was 69-81%. Upon obtaining the nitride addition with 4.1% N, a melt of Fe-Cr with 2.1-2.4% N was made. A stainless steel with 0.31-0.35% N was mated using the Cr-Mn-N addition with 7.9% N. The assimilation coefficient of N was 0.8-0.9 independent of the composition of the product and [N] in the addition.

SUB CODE: 11,13

L 04-677-67

JIM G

ACC NR: AR6020938

SOURCE CODE: UR/0137/66/000/002/V031/V031

AUTHOR: Berezhiani, V. M.; Mirianashvili, B. M.

TITLE: A study of processes for the production of highly nitrided chromalloy addi-

tions

SOURCE: Ref. zh. Metallurg, Abs. 2V206

REF SOURCE: Tr. Gruz. in-t metallurgii, v. 14, 1965, 149-156

TOPIC TAGS: chromium alloy, nitride, high frequency furnace

TRANSLATION: Various nitriding techniques were studied at the Institute with the aim of developing methods for obtaining highly nitrided Cr and of determining its basic physicochemical properties. Electrolytic Cr (99,5% Cr) from the Zestafonsky plant was used in plate form 5-50 mm wide and 1-3 mm thick and in powder with NH_3 and N_2 . The O_2 , H_2 and N contents of the electrolytic C_P extended to 0.50, among them O_2 0.0%. Nitriding of Cr by ammonia was done in the solid state at temperatures of 800-900°C. The [N] content in the product was 0.01-0.25% depending on the temperature in a given range. Mitriding with \hat{N}_2 was done in a crucible of a special high frequency furnace at temperatures of 1000-1450°C. The oxide layer on the Cr surface was pronounced and found to have a negative effect on the degree of nitriding. Metal with 5% N was obtained. To prevent loss of powdered alloy in the melting of steel, further nitriding

Card 1/2

UDC: 669.168.001

EWT(m)/T/EWP(t)/ETI L 42961-66 IJP(c) JD/WW/JC AR6024986 SOURCE CODE: UR/0081/66/000/007/E038/E088 AUTHOR: Berezhiani, V. M.; Mirianashvili, B. M. TITIE: Solubility of nitrogen in liquid and solid chromium at an elevated pressure of the gaseous phase SOURCE: Ref. zh. Khimiya, Part I, Abs. 78647 REF SOURCE: Tr. Gruz. in-t metallurgii, v. 14, 1965, 163-166 TOPIC TAGS: nitrogen, chromium, nitridation, liquid metal ABSTRACT: The solubility limits of N2 were determined in liquid and solid Cr at pressures up to 10 atm, and the kinetics of nitridation were studied. At a high N2 pressure and a constant temperature, the solubility of N_2 in solid Cr increases, and in solutions a chemical compound is formed which dissolves in the metal. In the liquid, CrN2 also forms a chemical compound on dissolution. D. Kashayeva. [Translation of SUB CODE: 11

Card 1/

ACCESSION NR: ARÃO27923

[% N] For the melts studied is as follows: for liquid Cr. 2920/T-0.755; for Cr with 6.1% Mn, 3120/T-0.804; for Cr with 23.2% Mn, 3800/T-1.278; for Cr with 0.16% C. 11quid Cr and its melts with Mn and C, log fn = log [% N] Cr-log [% N] Cr-lo

PROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6

ACCESSION NR: AR4027923

S/0137/64/000/002/A004/A004

SOURCE: RZh. Metallurgiya, Abs. 2A16

AUTHOR: Mirianashvili, B. M.; Berezhiani, V. M.

TITLE: Solubility of nitrogen in melts of chromium and manganese and chromium and

CITED SOURCE: Tr. In-ta metallurgii. AN GruzSSR, v. 13, 1962(1963), 271-273

TOPIC TAGS: nitrogen solubility, chromium, manganese, carbon, nitrogen activity

TRANSLATION: Cr-C and Cr-Mn melts were prepared from pure electrolytic Cr, Mn, and c. p. C in an atmosphere of H₂. It was found that the solubility (S) of N in Cr-C melts drops sharply with rising temperature. When [C] increases (to 1.5%), the S of in Cr-C melts. A change in [Mn] from 3.0 to 35.6% in Cr-Mn melts is less than little effect on the S of N. Whereas at [Mn] = 3% the S of N was 5.75% at 1700°, at [Mn] = 35.6% it was 3.96%. The thermodynamic functions of the reaction of Cr, Cr-C, and Cr-Mn melts with N were determined. The temperature dependence of log

3

1	NR: AP401850				
		800	GODE: IC, MM	BNOL: 00	
Card 2/2					

AP4018303 ACCESSION NR:

8/0137/64/000/001/A006/A006

SOURCE: RZh. Metallurgiya, Abs. 1A27

AUTHOR: Mirianashvili, B. M.; Bereshiani, V. M.

TITLE: Solubility of nitrogen in liquid chromium and melts of chromium and silicon

CITED SOURCE: Tr. In-ta metallurgii. AN GruzSSR, v. 13, 1962(1963), 265-270

TOPIC TAGS: nitrogen, chromium, silicon, chromium alloy, silicon alloy

TRANSLATION: The solubility of N in Cr and Cr-Si melts was determined by the dynamic equilibrium method. A mixture of purified N2(600-650 ml/min) and $\rm H_2(40-60~m1/min)$ was passed over a melt weighing 50 g after the latter had been kept in a stream of H2. Equilibrium was reached after an exposure of 2-3 hr. Electrolytic Cr and crystalline Si were used to prepare the alloys. The solubility of N im liquid Cr, both during nitriding and denitriding with a rase in temperature from 1730 to 19000 drops from 5.42 to 3.95%. It becomes 4.0% around the melting point. For liquid Cr log 1; for the melt of Or with 0.90% Si log 2, and for the melt of Cr with 4.5% Si log 3. P. Arsent'yev

ACCESSION NR: AR4018279

solutions of H₂SO₁, and HCl. Cr up to 20% does not affect the K. Mo (0--6%) raises it in HCl and H₂SO₂ solutions, but introduction of Mo above 3% impairs the worksbility of the steels.

DATE ACQ: 07Feb64

SUB CODE: HL ENGL: 00

ACCESSION NR: AR4018279

5/0277/64/000/001/0013/0013

SOURCE: RZh. Mashimostroitel ny*ye materialy*, konstruktsii i raschet detaley mashin. Gidroprivod (Hydrodrive), Abs. 1.48.72

AUTHOR: Berezhiani, V. M.

TITLE: Study of the effect of certain alloying elements on the corrosion resistance of high-manganese stainless steel

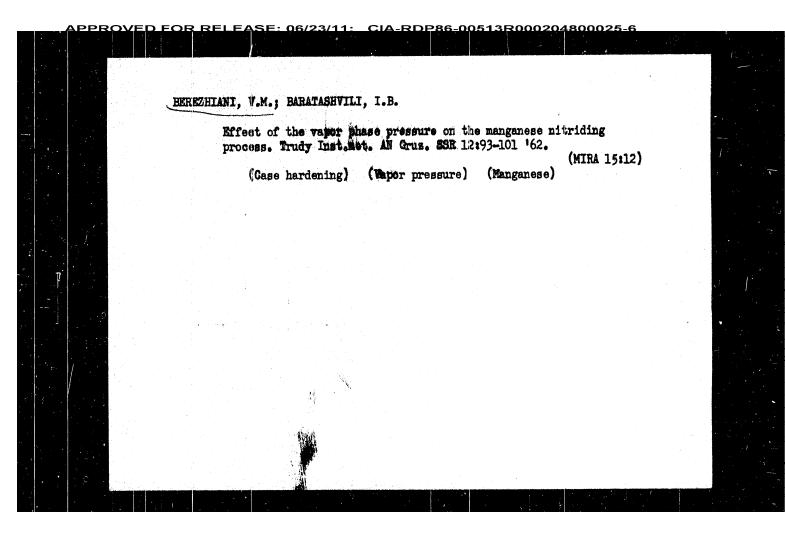
CITED SOURCE: Tr. In-ta metallurgii. AN GruzSSR, v. 13, 1962(1963), 105-116

TOPIC TAGS: corrosion resistance, high-manganese stainless steel, added alloy, carbon, titanium, copper, nitrogen, silicon, aluminum, nickel, chromium, molybdenum

TRANSLATION: The paper studies the effect of additional alloying (with C, Ti, Cu, N2, Si, Al, Ni, Cr, Mo) on the resistance to corrosion (K) of the chromiummanganese-nitrogen steel ANG-1 in various media, and points out that C (0.1--0.5%). N (up to 0.62%) and Cu (1-4%) do not affect the K of the steel in all the media studied. Th (0-6%) impairs the K in 5% solutions of H2SO4 and HCl. Si (0.5%-4.34%) and Al (0-1.2%) lower the K in 5% solutions of H2SO4 and HCl and do not affect it in water or a 5% HNO3 solution. Ni (1.0-6.7%) raises the K in 5%

Card

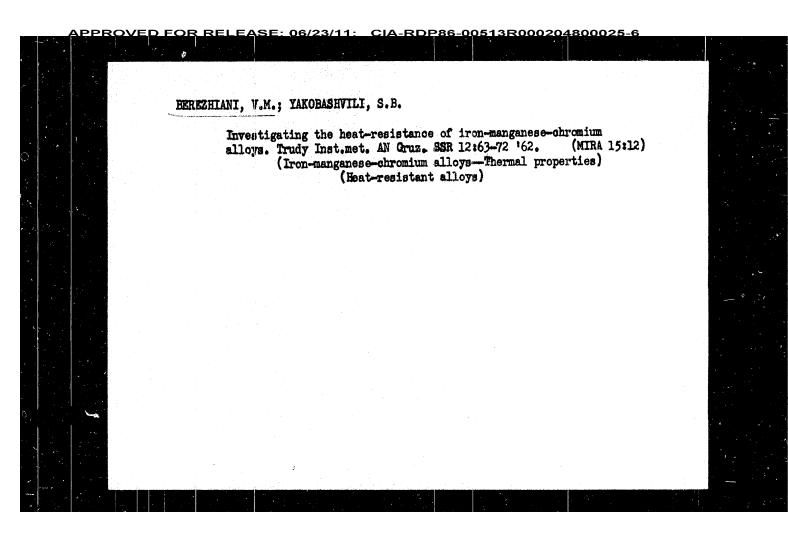
BEREZHIANI, V.M.; SIORIDZE, G.Ya.; MAKATASHVILI, 1.B.; KVE PENADZE, Sh.M. Results of industrial experiments for the production of nitrided mangament. Trudy Inst met. AN Gruz. SSR 13:169-179 62. (MIRA 17:9)



EEREZHIANI, V.M.; GRIKUROV, G.N.

Investigating the corrosion resistance of iron-mariganese-chromium alloys. Trudy Inst. AN Gruz. SSR 12172-92 '62. (MIRA 15:12)

(Iron-manganese-chromium alloys-Corrosion)



ACCESSION NR: AT3008986

content: In alloys containing ≤10% Cr. an increase in Mn content increases the refractoriness only by a small amount; in alloys containing more than 10% Cr. an increased Mn content leads to a decrease in the refractoriness of the alloys.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 28Oct63 ENCL: 00

SUB CODE: MA, EL NO REF SOV: 004 OTHER: 007

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6</u>

ACCESSION NR: AT3008986

\$/2808/62/012/000/0071/0072

AUTHORS: Berezhiani, V.M.; Yakobashvili, S.B.

TITLE: Investigation of the refractoriness of iron alloys with manganese and chrome

SOURCE: AN GruzSSR. Institut metallurgii. Trudy*, v.12, 1962, 71-72

TOPIC TAGS:

, iron, manganese, chromium, iron alloy,
iron alloy with manganese, iron alloy with chromium, iron alloy with
manganese and chromium, Fe iron with Mn, Fe alloy with Cr, Fe alloy with Mn and
Cr, refractoriness, heat resistance, high-temperature stability

ABSTRACT: The paper presents the results of an experimental investigation of the refractoriness of 75 alloys of Fe with Mn and Cr, containing from 0 to 30% of each of these elements with $C \le 0.1\%$ and $Si \le 0.4\%$. All investigations were performed in an atmosphere of air at $t=800^{\circ}C$. It is established that the refractoriness of Fe alloys with Cr and Mn is fundamentally determined by the Cr content. Alloys containing from 0 to 10% Cr are not adequately stable; alloys from 10-15% Cr are characterized by a satisfactory stability; alloys containing >15% Cr are highly refractory. The effect of Mn on the refractoriness is also dependent on the Cr

Card 1/2

Investigation of the machinability of low-Garbon . . . S/808/61/011/000/006/006

those specie characterized by a mean drillhole depth of 1 mm and total resistance to sawing and turning with a high-speed steel cutter; (2) "difficult-to-machine" are those s cels characterized by a mean drillhole depth of from 2 to 5 mm and by substantial resistance to sawing and turning (standard Steel GRIT [EYAIT]); (3) readily machinable, are those steels characterized by a mean drillhole depth of b to 10 mm and ready sawability and turnability (standard: Steel 50); (4) "excellently machinable! are those steels characterized by a mean drillhole depth of more than 10 mm and easy sawability and turnability (standard: Galibrated steel 25). A total of 85 Mn. Cr-Mil, and Cr-Mn-N steels were tested. The results are tabulated and graphed. The overwhelming majority of the steels investigated of the 3 systems. containing from 0 to 30% Mn and Cr with 0.1% C, are characterized by good machinability, both in the cast and in the quenched state. In most of the steels investigated, a homogenization at 1,150°C and subsequent quench does not impair the machinability but, on the contrary, improves it appreciably. It is asserted that the opinion, widely prevailing throughout the literature, that low-C steels of the Fe-Mn-Cr and Fe-Mn-Gr-N systems are not readily machinable, requires correction and that the Fe-Mn, Fe-Mn-Cr, and Fe-Mn-Gr-N stainless nonmagnetic steels investigated are more readily machinable than standard Cr-Ni steels. There are 2 figures and 1 one-and-one-hall-page table; one references.

Card 2/2

AUTHORS: Bereshiati, V.M., Minayev, G.P.

TITLE: Investigation of the machinability of low-Carbon steels of the Fe-Mn. Fa-Mn-Gr, and Fe-Mn-Gr.N. systems.

SOURCE: Akademiya naukQruzinskoy SSR.: Institut metallurgit. Trudy, v.J.l. 1961, 203-207.

TEXT: The paper describes an experimental investigation comprising a fludy of the machinability of low-G (Ga)Mn) Mn, Gr-Mn, and Gr-Mn-N steels in conjunction with a gene all affort to make and endy ligh-Mn stainless steels. The machinability criteria were passed on the standard methods set forth in All-Union Standard (GOST) 2525-44. The test specimens specified in the Standard are rolled rody not less than 150-mm diam for loss than formed diam for longitudinal machining and not less than 150-mm diam for longitudinal machining and not less than 150-mm diam for respectively modified mathodology was employed in which the machinability was determined by means of comprehensive date or longitudinal and transverse machining into depth of drilling under a donstant load, and various sawing methods. The basic diet depth of drilling under a donstant load, and various sawing methods. The basic diet diet in the first depth of drilling under a donstant load, and various sawing methods. The basic diet diet in the first depth of drilling under a donstant load, and various sawing methods. The basic diet diet in the first depth of drilling under a donstant load, and various sawing methods. The basic dietarion was the depth of a 2-nm diam hole drilled in 1 min. Following are the fusion depth of the 4 qualitative machinability groups: (1) "Nonmachinable" are Card 1/2

Discrimination of the magnetic properties of ... S/808/61/011/000/005/006 Conclusions: (I) The Fe corner of the system Fe-Mn-Cr for C=0.1% contains a preat number of normagnetic alloys which exhibit good machinability and which can said normagnetic steels lie within the bounds of 15% each of Cr and Mn contents. The introduction of up to 0.4% N into a nigh-Cr atest does not exert any effect on its magnetic ovidely, advertised abroad, cannot possess an austenitic structure. (3) The results of the investigation confirm existing literature data on the structure of low-C Mn sand also normagnetic atests containing small additions of Cr. There are 2 Card 2/2

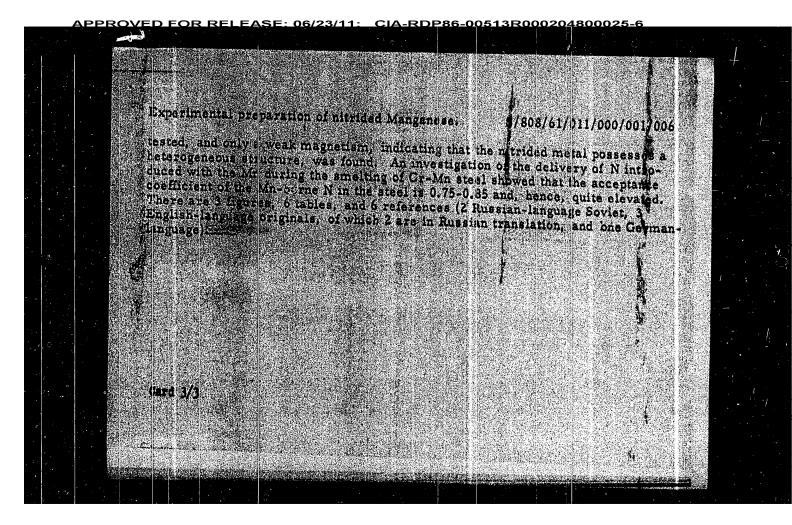
\$/808/61/011/000**/00/7**006 AUTHORS: Berishism, V.M., Grikurov, G.N. Investigation of the magnetic properties of low-Carbon steels of the TITLE: types Fe-Mn, Fe-Mn-Cr, and Fe-Mn-Cr-N. Akallemiya nauk Gruzinskoy SSR. Institut Metallurgil. Trudy, v. 11, SOURCE: 1961, 199-202. The paper describes an experimental investigation intended to develop new types of inexpensive normagnetic steels through the employment of the austenitic structure of high-Mn fron alloys. More specifically, the new Ni-free stamless steels to be developed are selected in the iron corner of the Fe-Mn-Cr-C diagrams in which for $C=\infty$ good machinability properties prevail. Inasmuch as in such alloys there are both magnetic (α and δ ferrits) and nonmagnetic (γ solid solution, δ phase, et al.) components, a magnetic investigation can reveal the presence in such sleels of magnetic components and thereby help in the establishment of a desired phase composition in a steel. The investigation comprised magnetic-balance meas-urements on specimens 6 mm, thick, 16-mm diam. The specimens were tested in two states; (1) In the cast state, (2) in a quenched state after a 5-hr homogenization at t=1,150°G and subsequent quench in water. The results are tabulated and graphed. Card 1/2

New High-Manganese Nifrogen-containing stesis.... S/808/61/011/000/002/006 of the Gruzian Republic in the making of high-Ma alloys for stainless and nonmagnetic steals in the system Fe-Ma-Cr. The most serious problem encountered was the inadequate corresion resistance of such steels, so long as the Cu, Mo, and Ni additions were small (1-2%). The Steel Laboratory of the Institute of Metallurgy has now developed a new type of austentic Cr-Mn-N steel which contains less than 0.12% C, 12-14% Cn, 16-20% Mn, and 0.3-0.5% N, which has been designated as steel type AHPI (ANGI). The mechanical properties of this new sicel are tabulated in comparison against 2 other stainless sustentitic Ni steels. The excellent strength properties of the ANGI steel can no doubt be further improved by work-hardening. The ANGI steel exhibits good corrosion resistance size and is eminently suitable for magniture, by unting. The present work constitutes merely a first step, and further avenues of development are briefly traced. There are I table and 15 refusences (6 Russian-language Soviet, 6 English-language, and 3 German-language).

\$/808/61/011/000/00**\$/**006 AUTHOR: Berekhiani, V.M. New high-Manganese Nitrogen-containing steels and their industrial PITLE: potentialities. OURCE: Akadimiya nauk Gruzinskoy SSR. Institut metallurgii. Trudy, v. 1, ·1961, 77-81, TEXT: This survey-type paper explores the possibilities of the industrial uses of high-Mn (1-2% Mn) steels which, with the exception of the Hatfield steel, have not found any general application to date. The prevailing reluctance against the use of Mn steels is altributed to the fear of an unlavorable effect of the Mn on the grain growth and the plastic properties of the ferrits. The objective of the present paper is to show that by a judicious introduction into a steel of suitable additions and a selection of suitable smelting and deoxidation methods the above-cited phenomena can be prevented. The value of such improvements in the production of stainless steel are clearly apparent. At present, Mn appears to be the fundamental substitute for Ni in Sov et stainless steels. The primary problem; in replacing Ni with Mn, is the necessity for providing an austenite stabilizer. Work begun in 1957 at

the institute of Matallurgy, AS GrusSSR, endeavored to utilize the rich Mn resources

Card 1/2



<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6</u>

Exparimental preparation of missided Manganese.

S/808/61/011/000/001/006

alloy in its solid state. The paper describes the test equipment which consists of a neutrinate, is compared with in a discharge meter made of refractory steel placed within the furnace and and outlets for the N-containing gas, a gas-drier in the inlet line, and a dissociation meter in the outlet line for the measurement of the degree of dissociation when ammonia is employed as a gas. The metal utilized was finely communited metallic Mn with a high degree of dispersivity, exhibiting a large specific surface which is cititated the nitriding process, but which caused considerable frouble subsequently, since the smelting of highly dispersed particulate matter results in ready exidation and much carry-off in the slag and in the gases. The investigation, therefore, continued with the use of electrolytic Mn in the form of lamelies 1-2 mm thick and 5-20 and more mm diam. This material is highly porous and possesses a great specific surface and, yet, is eminently suitable for the preparation of high-grade alloys. The nitriding of the Mn by means of ammonia various temperatures; an optimal T was found within the 660-680°C range. The nitriding was continued for 1-10 hrs without attaining a maximum N content. At the present time the greatest N content in steels does not exceed 0.4-0.5%. To attain this value, the Mn needs but 6% N content, whereas the present tests went up to 10% N content. It would appear possible to attain the desired result within 3-4 hrs by a more intensive process achieved by the use of ammonia with a controlled degree of dissociation. The magnetic properties of the nitrided Mn were pared 2/3

\$/808/61/011/000/001/006 III LE: incutal preparation of hitrided Manganese. OURCE Mademiya nauk Grusinskoy SSR. Institut metallurgii. Trudy, v. l 1961, 69676. The paper describes an experimental investigation, the prime objective I which is the introduction of N as a powerful stabilizer of austenite and as di interrecipitant of phases that might impair the technological and operational prop-erties of a steel. The more direct practical objective of the investigation was the is more direct practical objective of the investigation was me is containing charge material for the making of attinless steel, tigation constitutes a continuation of work originally proposed by trasponding member. AS USSR. The investigation was planted in paths: (a) The preparation of nivided Mn by the aluminotherms the charge of N-containing materials; (b) the preparation of nitrided sans of the nitriding of the metal in the solid state. A prelimina ch is described in datail; indicated that the aluminothermic avestigi**tle** memod dog our armit the preparation of an alloy with an adequately elevated N in ther investigation, therefore, was limited to the nitriding of the

S/020/61/140/002/022/023 B130/B110 Solubility of nitrogen ... Thus, at constant pressure and constant temperature under equilibrium $a_N^{Mn} = a_N^{Mn-Si(Fe)}, f_N[\%N]_{Mn} = f_N^*[\%N]_{Mn-Si(Fe)}$ The solubility of nitrogen in liquid Mn at $p_{N_2} = 1$ atm and T = const is taken as standard. Then, $f'_N = 1$ and $f_N = \frac{[\%N]_{Mn}}{[\%N]_{Mn-Si(Fe)}}$ (1). Si causes a stronger decrease of N solubility than Fe. Also an increase in the temperature of the melt reduces the N solubility (Fig. 4). log K and $\Delta F^{\rm O}$ were calculated from the experimental data given in Fig. 4. Calculation results are given in Table 1. There are 4 figures, 1 table, and 3 Soviet ASSOCIATION: Institut Metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov of the Academy of Sciences USSR) SUBMITTED: May 11, 1961 Card 2/6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6

S/020/61/140/002/022/023 B130/B110

AUTHORS:

Baratashvili, I. B., Fedotov, V. P., Samarin, A. M., and

Berezhiani, V. M., Corresponding Member AS USSR

TITLE:

Solubility of nitrogen in manganese-iron and manganese-

silicon melts

PERIODICAL:

Akademiya nauk SSSR. Doklady, v. 140, no. 2, 1961, 423-425

TEXT: The solubility of nitrogen and nitrogen-hydrogen mixtures in Mn-Fe and Mn-Si melts is calculated by the method of dynamic equilibrium between melt and gaseous phase. Apparatus and method were the same as indicated by A. M. Samarin, V. P. Fedotov (Tr. IV Konfer. po fiziko-khimicheskim osnovam proizvodstva stali, Izd. AN SSSR, 1960, p. 144). The Fe and Si content changed during melting by 2-3%. Results of determination of the solubility of nitrogen are given in Figs. 1 and 2. From the experimental data, the dependence of the coefficient of nitrogen activity in Mn-Fe and Mn-Si melts on the Fe and Si concentration in the melts is given:

 $a_{\rm N}^{\rm Mn} = f_{\rm N} [\% N]_{\rm Mn}, \quad a_{\rm N}^{\rm Mn-SI(Fe)} = f_{\rm N} [\% N]_{\rm Mn-SI(Fe)}$ (a).

Card 1/8

Z

Solubility of mitrogen in liquid ... S/020/61/139/006/014/022 B103/B101

equilibrium with N_2 having a pressure of 1 atm. According to experimental data, the following relations are obtained for $P_{N_2} = 1$ atm and $f_N = 1$:

$$\log K = \log[\% N] = 3010/T - 1.457;$$
 (2);

$$\Delta F^{\circ} = -13,780 + 6.65 \text{ T}$$
 (3)

There are 2 figures and 6 references: 3 Soviet and 3 non-Soviet.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR (Institute of Metallurgy imeni A. A. Baykov, Academy of Sciences USSR)

SUBMITTED: April 29, 1961

Oard 3/3

Solubility of nitrogen in liquid ...

S/020/61/139/006/014/022 B103/B101

was heated with an $//\Gamma$ -60 (LG-60) h-f tube generator. Mn melt was purified with purified hydrogen (400 ml/min) for 1 hr. Subsequently, it was the action of N₂ or N₂+H₂ for 120 - 180 min at a given temperature and with a given consumption of H₂ and N₂ (40 and 1100 ml/min, respectively) (series I). In the second series, the treatment was performed within 30, 60, 90, and 120 min. In the third series, Mn with a nitrogen content of 3.3 and 6.0% was treated as stated above but without previous purification in H₂. The nitrogen content of Mn was chemically determined. It is noted that equilibrium at the same temperature is attained both by saturating the Mn melt with nitrogen and by denitrifying the nitrogen-containing Mn. Keeping the manganese in the gas current for 1 hr is sufficient for reaching equilibrium. The solubility of nitrogen decreases with increasing temperature. This function is given by $1/2 N_2(g) \rightleftharpoons /N$, $K = a_N/P_{N_2}^{1/2} = f_N /N /P_{N_2}^{1/2} (1)$. As a standard state, an Mn melt is taken, which is in Card 2/3

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6

S/020/61/139/006/014/022 B103/B101

AUTHORS:

Baratashvili, I. B., Fedotov, V. P., Samarin, A. M., Corresponding Member AS USSR, and Berezhiani, V. M.

TITLES

Solubility of nitrogen in liquid manganese

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 6, 1961, 1354-1355

TEXT: Since the data published on the solubility of nitrogen in liquid manganese are contradictory, the authors studied this problem by the method of dynamic equilibrium established between liquid manganese and nitrogen or a nitrogen - hydrogen mixture. The activity of N₂ in the metal corresponds to the partial pressure of N₂ in the gaseous phase at the instant of equilibration. The nitrogen content corresponding to the equilibrium was determined in a specimen of the solid, rapidly cooled metal. Methods and apparatus were described by A. M. Samarin, V. P. Fedotov (Tr. IV Konfer. po fiziko-khimicheskim osnovam proizvodstva stali (Proceedings of the 4th Conference on the Physicochemical

Fundamentals of Steel Production) Izd. AN SSSR, 1960, p. 144). The metal Card 1/3

S/137/62/000/003/157/191 A052/A101 An investigation into the kinetics ... 6 references. A. Babayeva [Abstracter's note: Complete translation] Card 2/2

<u> APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6</u>

8/137/62/000/003/157/191 A052/A101

6-16

1.1800

AUTHORS:

Baratashvili, I. B., Berezhiani, V. M.

TITLE:

An investigation into the kinetics of the process of nitriding

metallic manganese

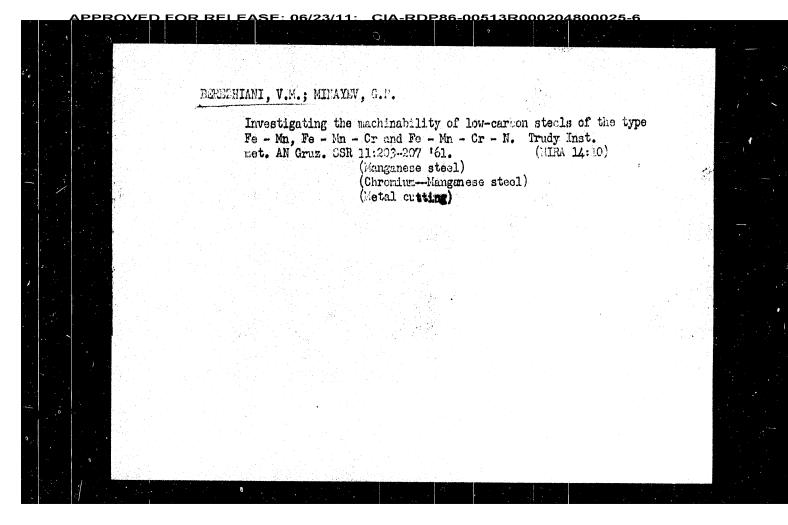
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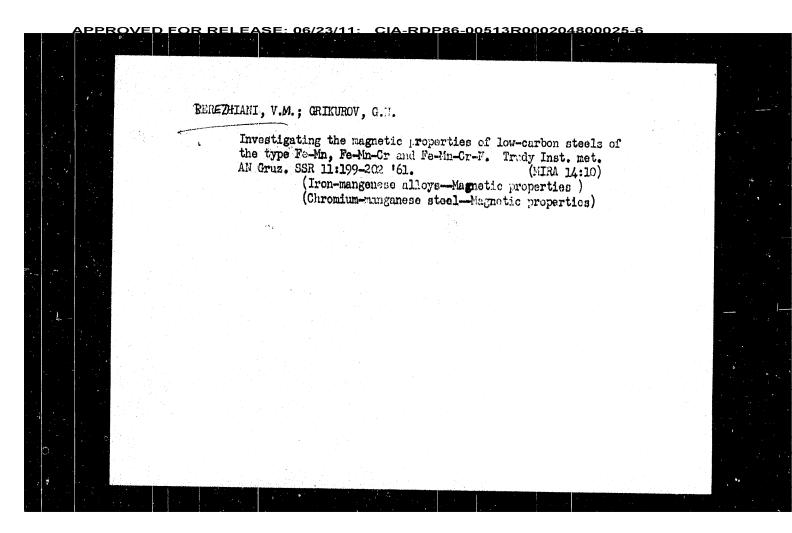
Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 100-101, abstract

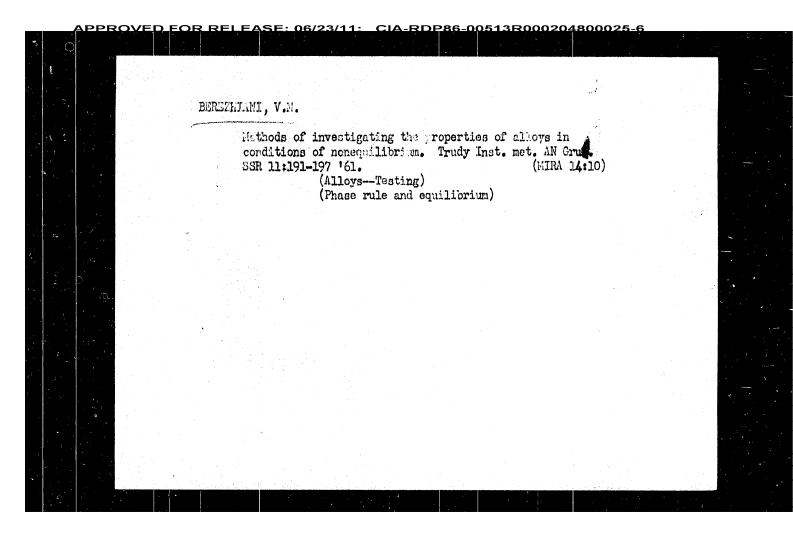
3I652 ("Soobshch. AN GruzSSR", 27, no. 2, 1961, 169-172, Russian)

TEXT: The kinetics of nitriding metallic Mn with molecular N has been investigated. The scheme of installation for studying the kinetics of nitriding is presented. With the increase of temperature the rate of nitriding increases sharply. For instance, to reach 4.4% N in the alloy at 850°C 180 minutes are needed whereas at 1,100°C less than 60 minutes. The nitriding of Mn at temperatures over 1,100°C leads to the sintering of Mn powder. As regards the problem of the effect of phase composition of the alloy on the process of N diffusion, the investigation has established a negative effect of multiphase structures on the kinetics of nitriding process. Optimum temperature conditions of nitriding by means of molecular N, which are recommended for working out the technology of nitrided Mn production, are temperatures of 900 - 1,000°C. There are

Card 1/2







39655 s/137/62/000/007/048/072 A057/A101

18.1130

AUTHOR:

Berezhiani, V. M.

TITLE:

New high-manganese nitrous steels and the prospects of their use in

industry

PERTODICAL:

Referativnyy zhurnal, Metallurgiya, no. 7, 1962, 55 - 56, abstract` 71339 ("Tr. In-ta metallurgii. AN GruzSSR", 1961, 11, 77 - 81)

A new type [AHT-1 (ANG-1)] of austenitic Cr-Mn-N-steel was developed with the following composition (in %): C < 0.12, Cr 12 - 14, Mn 16 - 20, and N 0.3 - 0.5. The steel has high mechanical properties and good cutting workability in the east, as well as in the hardened state. This steel will have a wide use only as stainless steel, but not as acidproof steel. Also a non-magnetic Mn-N-steel was developed [AHF -2 (ANG-2)] with the composition (in %): C 0.08 - 0.12, Mn 16 - 18, N 0.2 - 0.3, which has better technological properties in comparison to ANG-1, but is recommended in cases when no corrosion resistance is necessary.

T. Rumyantseva

[Abstracter's note: Complete translation]

Card 1/1

ERREZHAINI, V.M.; BARATASHVILI, I.B.

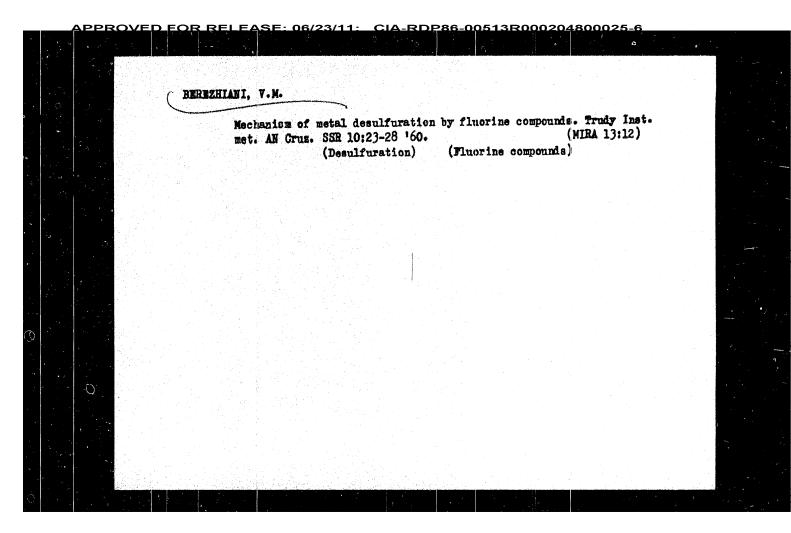
Experiments in the production of nitrided maganese. Trudy Inst. met. AN Gruz. SSR 11:69-76 '61. (MIRA 14:10) (Case hardening)

REFERENCE OF Conjugate phases on the corrosion properties alloys.

Refect of conjugate phases on the corrosion properties alloys.

Trudy Inst. met. AN Grus. SER 10:87-101 '60. (MIRA 13:12)

(Alloys—Corresion) (Phase rule and equilibrium)



BEREZHIANI, V. M. and BARTASHVILI, I. B. Issledovaniy protsessov polucheniya výsokoazotistogo margantsa. report submitted for the 5th Physical Chemical Conference on Steel Production, Moscow, 30 Jun 1959.

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SOV/5411 Physicochemical Bases of (Cont.) PURPOSE: This collection of articles is intended for engineers and technicians of metallurgical and machine-building plants, senior students of schools of higher education, staff members of design bureaus and planning institutes, and scientific research workers. COVERAGE: The collection contains reports presented at the fifth annual convention devoted to the review of the physicochemical bases of the steelmaking process. These reports deal with problems of the mechanism and kinetics of reactions taking place in the molten metal in steelmaking furnaces. The following are also discussed: problems involved in the production of alloyed steel, the structure of the ingot, the mechanism of solidification, and the converter steelmaking process. The articles contain conclusions drawn from the results of experimental studies, and are accompanied by references of which most are Soviet. Card 2/16

BEREZHIANI, VM 111 PHASE I BOOK EXPLOITATION SOV/5411 Konferentsiya po fiziko-khimicheskim osnovam proizvodstva stali. 5th, Moscow, 1959. Fiziko-khimicheskiye osnovy proizvodstva stali; trudy konferentsii (Physicochemical Bases of Steel Making; Transactions of the Fifth Conference on the Physicochemical Bases of Steelmaking) Moscow, Metallurgizdat, 1961. 512 p. Errata slip inserted. 3,700 copies printed. Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Responsible Ed.: A.M. Samarin, Corresponding Member, Academy . of Sciences USSR; Ed. of Publishing House; Ya. D. Rozentsveyg. Tech. Ed.: V. V. Mikhaylova. Card 1/16

On the Aging of Aluminum Alloys

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69358 SOV/123-59-19-78742

compounds. The idea set forth by the author is confirmed by the phenomenon of reversal, the point of which is, that the aged alloys, as a result of short-time heating up to certain temperatures, lose the qualities they acquired in the aging process and pass over into the initial hardened condition. In artificially aged alloys this phenomenon of reversal was not discovered. Thereby a number of investigators were led to the conclusion that there are principal differences between the processes of natural and artificial aging. The author found out that the process of reversal can also be observed in artificially aged alloys. During the reversal, the process of diffusion of phases is preceded by a considerable softening of the alloy, which can be explained by the tearing off of coherent phases from the hard mother solution. In order to check these assumptions, the diffusion processes of coherent and incoherent phases of aluminum alloys were investigated. As investigation objects, phases were selected, forming in Al-Cu and Al-Cu-Mg alloys during the annealing process. In these alloys the diffusion processes of coherent phases are accompanied by a preliminary softening of the alloy, while during the diffusion of incoherent phases a preliminary softening is not observed. The new physical-chemical theory of metallic alloy aging considers the processes of artificial and natural aging as different stages of the forming of chemical compounds. The problem of the nature of the reversal process is analyzed and a new treatment of this phenomenon, based on the advanced theory of aging, is given. 3 figures, 36 references.

P.S.M.

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69358

sov/123-59-19-78742

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 19, p 126 (USSR)

18.1210

AUTHOR:

Berezhiani, V.M.

TITLE:

On the Aging of Aluminum Alloys

PERIODICAL:

Tr. In-ta metallurgii AS GruzSSR, 1958, Vol 9, pp 89 - 96

ABSTRACT:

The author describes the evolution of views on the aging mechanism of aluminum alloys and criticizes the prevailing theories. Treating aging as a decomposition process would be justified if the initial supersaturated hard alloy contained molecules of the phase being formed during the aging. It is established, however, that the initial hard solution does not contain phase molecules that are being formed during the aging process. In aging alloys phases are formed which, depending on the temperature, are different in structure, composition and stability, and, if the temperature is increased, less stable phases are converted into more stable chemical compounds. Consequently, the processes taking place in metallic alloys during aging cannot be considered as a simple process of decomposition. These are complex processes of the forming of chemical compounds, or a combination of the processes of decomposition and formation of chemical

Card 1/2

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SOV/137-58-9-19844

On the Problem of the Nature of Aging of Metallic Alloys

similar to solvates, while the process of aging is similar to the process of solvation. Thus, the results obtained in the investigation of aging processes but of the theory of solutions as well.

1. Alloys-Aging 2. Alloys-Transformations

L.M.

Card 2/2

PPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6

SOV/137-58-9-19844

Translation from: Referativnyy zhurnal, Metallurgiya. 1958, Nr 9, p 249 (USSR)

AUTHOR: Berezhiani, V.M.

TITLE: voprosu o prirode stareniya metallicheskikh splavov)

PERIODICAL: Tr. In-ta metalla i gorn. dela AN GruzSSR, 1957, Vol 8, pp 71-75

ABSTRACT: The mechanism of aging of metallic alloys is examined. It is shown that in the case of Al-Cu and Al-Cu-Mg alloys the temperatures of complete recovery are fairly close to each other and are independent of the concentration of the alloy. The concept of aging as being a process of formation of a chemical compound (C) is confirmed. The temperature greatly influences the process of formation of chemical C's and effects the formation of intermediate C's within the alloy which differ in structure, composition, and stability. The intermediate C's are stable only within a definite interval of temperatures and tend to change into more stable C's as the temperature is increased. The intermetallic C's which are formed in metallic Card 1/2 alloys are not stable chemically and are, in their nature, more

SOV/137-58-8-18007

A New Method of Investigation of the Processes of Phase (cont.)

properties diagrams and the lines of isochronic cross section are constructed for the tempered and the aged states. The distance bet ween the curves characterizes EA. This method was applied to the study of the aging process of an Al-Cu-Mg alloy with 3.74% Cu and 0.62% Mg. It is demonstrated that the phases that form during natural aging are not identical with the phases produced with artificial aging. In the latter case the process of their formation proceeds through the solution of the metastable phases in the solid solution and the separation of the already stable phases from the supersaturated solid

> 1. Aluminum-copper-magnesium alloys-Transformations T. M.

2. Aluminum-copper-magnesium allcys-Temperature factors

3. Aluminum-copper-magnesium alloys-Aging

Card 2/2

BEREZHIANT, V.M.

SOV/137-58-8-18007

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 257 (USSR)

AUTHOR: Berezhiani, V.M.

A New Method of Investigation of the Processes of Phase Transformations in Metallic Alloys (Novyy metod issledovaniya protsessov fazovykh prevrashcheniy v metallicheskikh splavakh)

PERIODICAL: Tr. In-ta metalla i gorn. dela. AN GruzSSR, 1957, Vol 8,

ABSTRACT: A complex method is proposed for the study of phase transformations in aging Al alloys, consisting of the construction of temperature-properties diagrams, with isochronic crosssection lines entered on them, and of the determination of the magnitude of the effect of aging (EA). EA is characterized by the difference in the properties of the alloy in the tempered and in the aged states and permits the control of the state of the solid solution in the course of the entire time of transformation. It is known that EA decreases if the formation of a new phase occurs in the process of aging and, by contrast, that it increases upon the dissolution of the phases already existing in the alloy. For the determination of EA, the temperature-

Card 1/2

TITLE:

KAKABADZE, V.M.; NIKOLAYSHVILI, Z.G.; MSHVENIYERADZE, N.G.; BEREZHIANI, L.B. Physicochemical analysis of the products of interaction between magnesium nitrate and urea. Dokl. AN SSSR 161 no.5:1156-1157 Ap '65. (MIRA 18:5) 1. Gruzinskiy politekhnicheskiy institut im. V.I.Lenina. Submitted October 14, 1964.

BEREZHIANI, L.B. Nature of the molecular compound in the system stearic acid palmitic acid. Soob. AN Gruz. SSR 31 no.1:45-52 J1 *63. (MIRA 17:7) BEREZHIANI, D.I. Complex treatment of thyrotoxicoses. Trudy Inst.eksp.i klin.khir.i gemat. AN Gruz.SSR 10:169-175 *62. (MIRA 16:2) (THYROID GLAND-DISEASES) APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000204800025-6

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ACC NR: AT6033032

where \emptyset is the scalar potential of the magnetic field; H_0 is the magnitude of the longitudinal field; H_0 is the amplitude of the p-th harmonic of the helical field; r, \emptyset , z are coordinates. There follows a mathematical development for the case of a helical field with n=2. The article gives detailed mechanical drawings of several of the main features of the equipment used, including a cross section view of the apparatus, details of the helical winding, and a block diagram of the feeding system. A further figure shows an oscillogram of the current flowing through the winding. The experimental data confirm the validity of the approach to the problem. "In conclusion the authors express their sincere thanks to M. S. Rabinovich for his continuing interest in the work and for his helpful discussions, as well as to Ie. P. Aleksandrov V. I. Dudin, V. I. Kryykov, and V. P. Solov'yev who took part in the construction of the equipment, and to G. I. Os'kina who took part in the construction of the winding system." Orig. art, has: 5 formulas, 7 figures, and 1 table.

SUR CODE: 20/ SURMI DATE: none/ ORIG REF: 014/ OTH REF: 003

Card 2/2010

UR/2504/66/032/000/0020/0028 SOURCE CODE: AUTHOR: Berezhetskiy, M. S.; Grebenshchikov, S. Ye.; Zverev, N. M.; hpigel', ORG: none TITIE: Toroidal magnetic trap of the stellarator type with external injection of the p.Lasma_ SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 32, 1966. Fizika plasmy (Flasma physics), 20-28 TOPIC TAGS: magnetic trap, plasma injection ABSTRACT: The vacuum chamber of the magnetic trap under consideration was in the form of a torus with a diameter of 120 cm and a cross section diameter of 10 cm. A magnetic field of the stellarator type (without taking the toroidal character into account) has the following form: $\Phi = H_0 \mathbf{s} + \frac{1}{\alpha} \sum_{k=0}^{\infty} H_p I_p(par) \sin p \, (\varphi - \alpha \mathbf{s}), \tag{1}$ p = n(2k+1),Card 1/2

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on an electrode that filled the entire cross section of the chamber. By varying the position of the gun the area was mapped out from which substantially all the injected electrons reached the collector. 2) A pulse of 20 eV electrons was injected along a line of force and the lifetime of the electrons in the chamber was determined with an electrostatic induction probe. Lifetimes of 200-300 μ sec, corresponding to 150-200 rivolutions, were usual. 3) An electron pulse was injected and the corresponding mignetic surface was mapped out with a small movable electrostatic induction probe. By measuring the time between injection and detection of the pulse, the number of revolutions (up to about 20) corresponding to a given point on the magnetic surface could be determined. The presence of closed mignetic surfaces was established for values of h/H less than 0.6. The magnetic surfaces were highly distorted or destroyed when h/H was increased beyond 0,8; the reason for this is not understood. Low order resonant perturbations were detected. These were evinced by a sharp decrease in the lifetime of the injected electron pulse at the resonant values of h/H and by break-up of the magnetic surface into two or three pieces, depending on the order of the resonance. The resonances were observed at the predicted values of h/H. The effect of a transverse magnetic field on the magnetic surfaces was investigated. This was found to shift the positions of the magnetic surfaces without significantly distorting them, in accord with theoretical calculations. The authors thank N.H. Zverev and G.S. Voronov for assistance with the experiments, and M.S.Rabinovich for his interest and for valuable discussions. Orig. ert. has: 1 formula and 8 figures.

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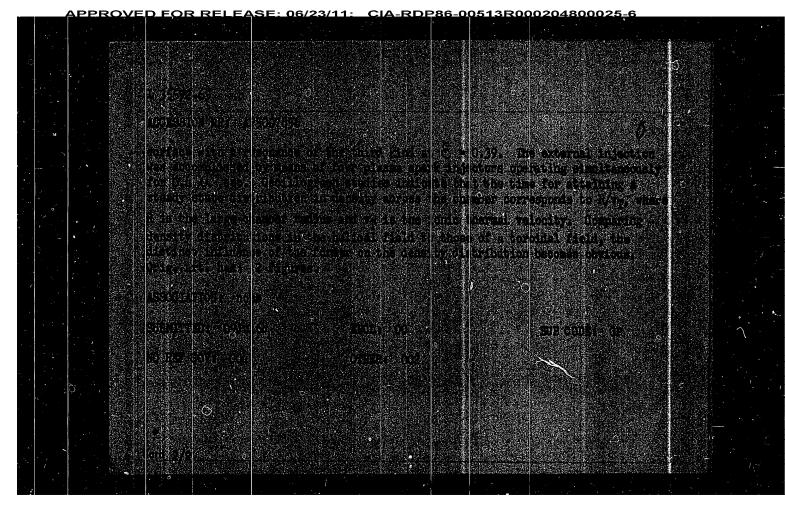
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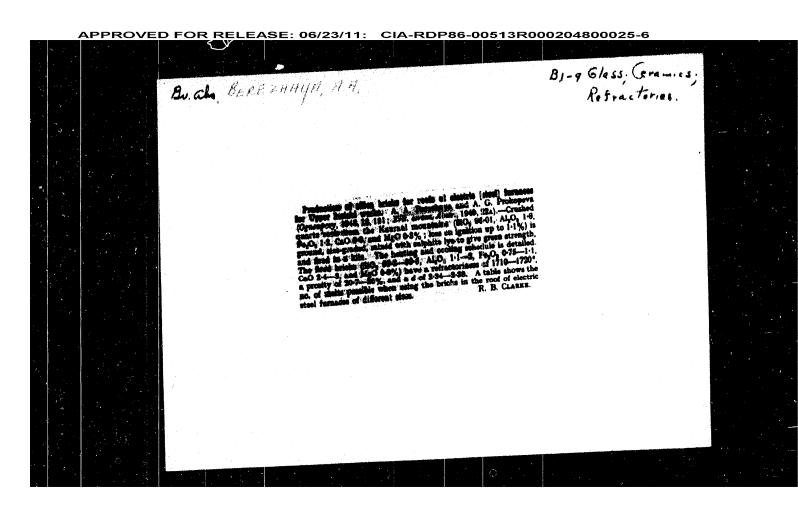
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SOURCE CODE: UR/0057/65/035/012/2167/2178 AVIHOR: Berezhetskiy, M.B.; Grebenshchikov, S. Te.; Popryadukhin, A.P. ONG: Physics Institute im, P.N.Lebedev, Moscow (Fizicheskiy institut) TITLE: Investigation of the structure of sagnetic surfaces in a stellarator with a double helical field SMRCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 12, 1965, 2167-2175 THE TACE: KELLE MEEDELL TIELD, Shame securitation, sagnetic trap, sagnetic Bladd monutement, electron been magnification fills. ANSTRACT: The magnetic surfaces of the stellarator field in the L-1 toroidal magnetic tiap have been explored with electron beams. The L-1 machine has been described elsewhere by G.H.Batanov et al. (DAN SSSR, 160, 1293, 1965). The stainless steel chamber was a torus with large and small radii of 60 cm and 5 cm. The longitudinal magnetic field had a strength of 3 kOe during the measurements and its corrugation on the axis was about 1.5%. The helical magnetic field was produced by four helical conductors of 7 turns each; neighboring conductors carrying currents in opposite directions. The ratio h/H of the fundamental harmonic h of the helical field to the longitudinal field H could be varied from 0.3 to 0.7. Three different techniques were employed to explore the magnetic surfaces: 1)A beam of 60-100 eV electrons was directed along a line of force at a selected point in the chamber and was collected after a single revolution Card 1/3 UDC: 538,122



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EEREZHANSKAYA, T.S. [Berezhans'ka, T.S.], kand.med.nauk; TANTSTURA, K.M.,
dotsent

Some data on aplastic anemia in childhood. Fed., akush. i gin. 22
inc.3121-24 '60. (MIRA 1444)

1. Kafedra gospital'noy pediatrii (zav. - chlen-korrespondent AMN
SSSR prof. O.M.Khokhol) Kiyevskogo ordena Trudovogo Krasnogo Znameni
meditainskogo instituta im. akademika A.A.Bogomol'tsa (direktor dotsent I.P.Alekseyenko).

(ANEMIA)

ZEUGAN, T.Yu. [Zhuhan, T.IU.]; BEREZHANSKAYA, T.S. [Berezhans'kz, T.S.]

Case of abnormal location of the stomach in the thoracic cavity. Fed., akush. i gin. 19 no.4+30-32 '57. (MIRA 13:1)

1. Bentgenodiagnosticheskoys otdeleniye (rukovoditel' - kand.med.nauk V.Yu. Arungaziyev) Klyevskogo rentgenc-radiologicheskogo instituta (direktor - prof. 1.T. Shevchenko) kluiniza gespital'nop pediatrii (zav. - prof. 0.M. Khokhol) Klyevskogo ordena Trudovogo Krasnogo Znameni mediteinskogo instituta im. akad. A.A. Bogomol'tsa (direktro - prof. Ie.F. Shamray).

(STOMACH--ABNORMITIES AND DEPORMITIES)

BEREZHANSKAYA, T.S. [Berezhans'ka, T.S.]; PIL'MAN, N.I., kand.med.nauk

Significance of an examination of the fundus oculi in children with
miliary tuberculosis or tuberculous meningitis. Ped., akush. i gin.
19 no.2:29-31 '57. (MIRA 13:1)

1. Kafedra gospital'noy pediatrii (sav. - chlen-korrespondent ANN SSSR
O.M. Khokhol) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo instituta im. akad. A.A. Bogomol'tas (dir. - prof. Ye., Shamzay)
na baze bol'nitsy im. M.I. Kalinina (glavnyy vrach - V.O. Udintseva).

(TUBERCULOSIS)

BEREZHANSKAYA, T. S. Cand Med Sci -- (diss) "The Theory of Miliary Tuberculosis in Children During Treatment With Antibacterial

Tuberculosis in hildren During Treatment With Antibacterial

Preparations." Kiev, 1957. 18 pp 20 cm. (Kiev rder of Labor

Red Banner Medical Inst im Academician A. A. Bogomolets), 200 copies

(KL, 28-57, 111)

PANASYNK, V.V. (L'vov); BEREZHNITSKIY, L.T. (L'vov); KOVCHIK, S.Ye. (L'vov)

Propagation of an arbitrarily oriented rectilinear crack during the stretching of a plate. Prikl. mekh. 1 no.2:48-55 '65.

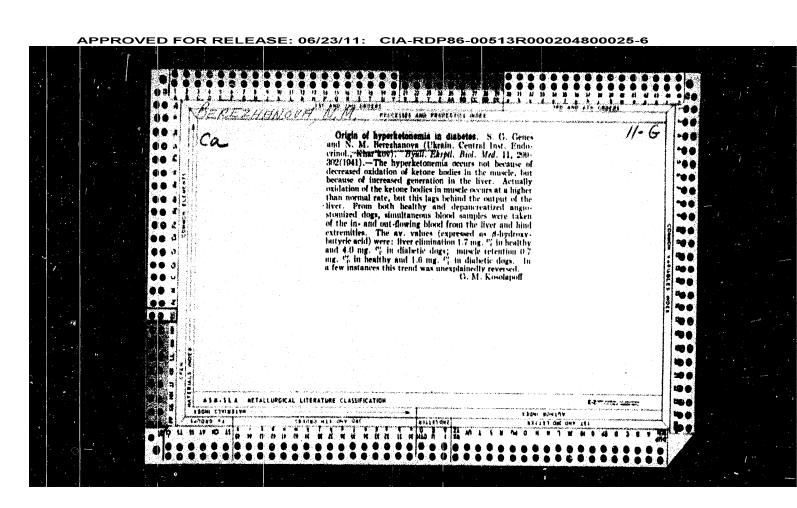
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(MIRA 18:6)

BEREZHINSKIY, L.I.; LISITSA, M.P. Testing the quality of plane optical surfaces. Zhur. prikl. spektr. 2 no.5:409-414 My '65. (MIRA 18:7) BEREZHANSKIY, Kost! Patrovich [Berezhaen'kyi, K.P.]; DOROSHENKO, M., red.;
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[New horizons] Novi horyzonty. L'viv, Kryzhkogo-zhurnal'ne vydvo, 1960. 41 p.

(Ukraine--Collective farms)



EFFEZHANOVA, K. T.

Josane
White-seeded sesame N-7. Sel. i sem. 20, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

γ-ray coloration of quartz glass

S/081/63/coc/co2/044/086

B156/B144

of the AB is proposed on the basis of the theory for the development of coloration centres and the quantum theory for the state of electrons in solid bodies. [Abstracter's note: Complete translation.]

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y-ray coloration of quartz glass 230-110 m μ range. The spectral characteristics are given. The quartz glass was melted in a moderately oxidizing atmosphere, in air, and in the flame from a torch burning on natural gas and oxygen. The effects of the conditions under which the quartz glass was produced on the extent to which irradiation colored it were also investigated with specimens melted in a oxy-hydrogen flame and in vacuum-press furnaces. It was established that the result of impurities being present in quartz is that irradiation colors it. The intensity of coloring and the locations of the absorption bands (AB) depend on the type of impurity and its concentration. Increase in the contents of Al, Ge, Fe or Ta oxides brings about the formation of 3 with a maximum of ~ 400 mm. It is suggested that, by analogy with crystalline quartz, the absorption in this range is caused by centres of coloration which form when the Si4+ in the framework of the glass is replaced by Fe^{5+} , Al^{5+} , Ge^{4+} , etc. The characteristic AB formed when quartz glass is irradiated are in the 300 and 550 mm range. AB in the 300 mm range form in every case. The formation of AB in the 550 mm range is promoted if the melting conditions are of a reducing nature. It is anggested that the AB in the 300 mm range are due to the presence of unbound oxygen atoms, and that the AB in the 550 mm range are due to vacanctes in unbound oxygen atoms. A hypothesis regarding the formation cará 2/3

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AUTHORS:

Botvinkin, O. K., Berezhnaya, I. N.

TITLE:

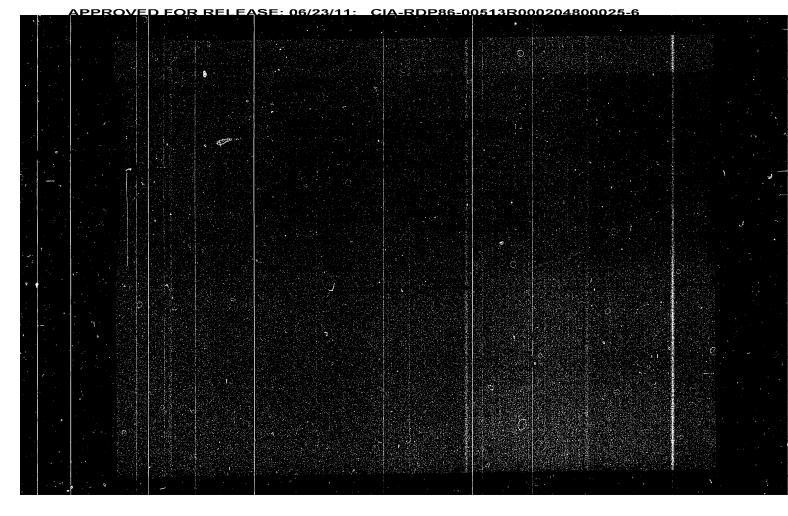
PERIODICAL:

γ-ray coloration of quartz glass

Referativnyy zhurnal. Khimiya, no. 2, 1963, 375, abstract 2M68 (Steklo. Byul. Gos. n.-i. in-ta stekla, no. 2 (111),

TEXT: The effects of various impurities in quartz on its coloring under radiation were investigated, and the effects of the conditions under which quar'z glass is melted were determined. The irradiation was carried out in a K. 0000 (K-20000) apparatus for radiation chemistry research. The integral dose used was 5.6.100 r. The integral dose was increased to 7.5.108 r in the case of specimens which the first dose did not color. A number of specimens were irradiated in an atomic reactor (integral dose 2.109 r). The effects of the irradiation were assessed from the changes in the spectral characteristics of the specimens investigated, determined with an 4-4 (SF-4) spectrophotometer in the

Card 1/3



SHTIL'MAN, Ye.I., kand. tekhn. nauk; BERKZETSKIY, V.I., inzh.; SHAMRAY, V.S., inzh.

Electrothermal stressing of lateral reinforcements in bridges.
Avt. dor. 28 no.1:20-22 Ja '65. (MIRA 18:3)

SHTIL'MAN, Ye.I., kand.tekhn.nauk; BARINGOL'TS, A.Z.; BEFEZETSKIY, V.I.

The role of transverse beams in bridge design. Avt.dor. 24, (MIRA 14.74)

(Rridges, Concrete) (Precast concrete construction)